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09/590,417

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Arthur R. Tilford

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THE DIRECTV GROUP INC
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EXAMINER

BELIVEAU, SCOTT E

ART UNIT

PAPER NUMBER

2614

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/590,417

Applicant(s)

TILFORD, ARTHUR R.

Examiner

Scott Beliveau

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 200412030.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's amendments to claims 43, 53, and 65 so as to remove the first recitation of the "hand held computing device", as agreed upon in the Interview on 30 November 2004, is sufficient to overcome the previously presented rejection under 35 U.S.C. 112. The rejection under 35 U.S.C. 112 of claims 43, 53, and 65 has been withdrawn. However, it is noted that the previously applied art rejection is still applicable to the claim as both originally presented and newly amended.
2. With respect to the rejection of claims 35, 47, and 57 under 35 U.S.C. 103(a) as being unpatentable over Perlman, in view of the PocketTV™ article, and in further view of Huang et al., applicant's arguments have been fully considered but they are not persuasive.

With respect to applicant's confusion as to the combination of the combined teachings of the Perlman and PocketTV article, the examiner is unclear as to where the confusion lies. The PocketTV reference teaches that palm-sized PC or PDA that "becomes a miniature VCR". The Perlman reference teaches the interconnection of a "set top box" [40] with any consumer electronic device and the ability to transfer video to/from those devices such as a VCR. The Huang reference discloses the particular usage of a PDA as a remote controller. Taking the first two references in combination, provides a VCR/PDA that interconnects with and transfers A/V information to/from the set-top-box similar to a traditional VCR but with the advantage of being both portable. Furthermore, the particular interconnection of a PDA to the set-top box advantageously enables the stored information viewed on a larger screen in view of the Perlman reference. The particular usage of a PDA interconnected to a set-top-

Art Unit: 2614

box was clearly envisioned by those skilled in the art as evidenced by the art of record and the common usage motivation of interconnecting a PDA to a set-top box so as to facilitate the viewing of stored information from the portable small screen PDA on a larger screen was clearly recognized as set forth in the Final Rejection of 27 September 2004.

With respect to applicant's assertion that a WebTV® terminal is not a set top box, as previously addressed in the Advisory Action dated 16 December 2003, the Microsoft Computer Dictionary 5th edition, defines a WebTV® as a system with the ability to access the Web as well as send and receive e-mail on a television by means of a set-top box equipped with a modem. Furthermore, it is unclear as to why applicant continues to argue that a WebTV® device is not a "set top box" in view of the instant application definition of the term "set top box" as referring to any device capable of receiving program information signals (IA: Page 10, Line 23 – Page 11, Line 4). A WebTV® device as described by Perlman is capable of receiving program information signals. Accordingly, in light of both the common usage definition of the term of a WebTV® and in light of applicant's specification, it is the examiner's position that the central terminal [40] is reasonably construed as meeting the claimed limitation.

With respect to applicant's arguments that the combination of references is inoperative in so far as the PocketTV device is not only incapable of being used with a STB, but is also unable to receive/transmit an MPEG clip to a set top box, the examiner respectfully disagrees. As previously set forth in the Final Rejection of 27 September 2004, the HP Jordana™ 430se inherently supports the transfer of files to/from the PDA as evidenced by the HP User Guide, it is commonly known in the art that VCR-type devices transmit video

files for subsequent display as taught by Perlman, and the analogous sharing of video files between VCR users is known in the art as described in applicant's background (IA: Page 2, Lines 3-12). Furthermore, the fact that a WebTV™ is a set top box that is essentially a general purpose computer with a tuner is commonly understood in the art. Accordingly, taken in combination with the Perlman reference, all video signals derived from the PDA of the PocketTV device would be distributed/received through the central electronic device or set-top box [40]. Given that the PDA must first receive an MPEG clip in order play it back and since the STB [40] of Perlman is the central hub of network connectivity and supports communication to the Internet, it is the examiner's position that taken in combination that the claim limitations of receiving/transmitting of an MPEG clip to a set top box is met.

As to the assertion that the PocketTV device is incapable of being used with an STB, the examiner respectfully disagrees. As aforementioned, the instant application defines the usage of the term "set top box" as referring to any device capable of receiving program information signals (IA: Page 10, Line 23 – Page 11, Line 4). The art of record clearly illustrates that the interconnection of a PDA with a STB was previously envisioned. The Wharton et al. reference was merely referenced as support in response to applicant's arguments of hindsight that the interconnection of a PDA and a STB was not within the level of ordinary skill in the art. Perlman teaches that the central electronic device or "set top box" [40] is operable to interconnect any consumer electronic device. As is explicitly taught by Perlman, such devices are not limited to the interconnection of large standard entertainment unit systems, rather the reference explicitly discloses that "consumer electronic devices" or electronic devices" as used therein refer to any number or type of various consumer

Art Unit: 2614

electronic devices that provide audio output, video output, or information services or can be connected to a television set (Col 6, Lines 43-54). Such devices include personal computers and VCRs. The PocketTV™ article discloses the existence of a palm-sized personal computer that also acts as a miniature VCR and is clearly within the scope of the Perlman reference as it provides audio output, video output, or information services. Accordingly, it is the examiner's position that the Perlman reference provides an adequate nexus or suggestion so as to interconnect a consumer electronic device such as a palm-sized PC or PDA with a set-top terminal. This connection advantageously enables the user of the Perlman system with a portable storage device.

In reference to applicant's arguments pursuant to non-claimed limitations, as is well known in the art and further disclosed in the Perlman (US Pat No. 6,530,085) reference, of record, which is incorporated by reference in its entirety by the Perlman ('879) reference, the "set top box" is operable to receive MPEG encoded video (Perlman ('085): Col 19, Lines 20-64) for storage on a digital storage device. Such a teaching provides further evidence that the combination is not inoperative. Finally, applicant's further arguments that the article is limited to an MPEG encoder associated with a PC further weaken the assertion that the PocketTV device is incapable of being used with an STB in view of the personal computer / "set top box" [118] of Schindler et al. which discloses the particular usage of both.

As to the assertion that the PocketTV™ device disclosed in the article is somehow non-enabling, the examiner respectfully disagrees with the applicant's opinion. There is no evidence that the device is not enabled, nor is one required in a press release. Additionally, there is no evidence as to why the makers of the PocketTV™ would explicitly equate the

Art Unit: 2614

device with a VCR if such were not the case or why the makers of the device would promote a product that doesn't work as advertised. Furthermore, the device is clearly capable of recording MPEG video or else it would not be able to play the stored media back as described in the article.

With respect to applicant's arguments pertaining to claims 47 and 48, it is the examiner's understanding that these arguments were previously addressed in the Final Rejection of 27 September 2004. As to the applicant's remarks that the ability to share and distribute media between users with a similar configure of home entertainment system only being advantageously pursuant to the present invention, the examiner respectfully disagrees. For example, as noted in applicant's admitted prior art, it is well established that owners of compatible entertainment systems comprising VCRs are operable to share and distribute media (IA: Page 3, Lines 3-12) for the inherent advantages associated with doing so. Furthermore, the examiner has no basis by which conclude that users with identical configurations to those taught by the combined references would be precluded or not have a reasonable chance of success so as to share media between devices. For example, if user disconnected the VCR [130] of Perlman with its associated memory and reconnected it at a friend's house (in place of the identical configuration VCR), there is no teaching or suggestion that the replacement VCR with its associated recorded media would not serve to operate in an identical fashion to subsequently playback the previously recorded media. Furthermore, the HP Jordana 430/430se device inherently supports the capability to transfer/receive information between itself and multiple computing devices whereupon the user can view the transferred information on the monitor of a local computing device.

Art Unit: 2614

3. With respect to the rejection of claims 35, 47, and 57 under 35 U.S.C. 103(a) as being unpatentable over Schindler et al., in view of the PocketTV™ article, and in further view of Huang et al., applicant's arguments have been fully considered but they are not persuasive.

With respect to applicant's arguments that there is no suggestion or motivation to combine the HP Jordana 430/430se with Schindler et al., applicant asserts that there is no motivation to particularly transmit the stored movie from the HP Jordana 430/430se to the personal computer / "set top box" [118] of Schindler et al. for display on a larger screen without the examiner engaging in hindsight reconstruction by relying upon the particular benefits provided by applicant's invention. The examiner is unaware of where in the specification the particular benefits of transferring information from a smaller screen computing device to a larger screen are explicitly set forth. It is the examiner's presumption that the benefits are implicit or inherent to interconnection of a handheld computing device, a STB, and a display monitor. Accordingly, such a motivation would equally apply to the examiner's combination of a handheld computing device with a STB. Additionally, the particular motivation or advantages associated with displaying an image from a small screen handheld computing device to a larger screen is common knowledge as clearly evidenced by the art of record as was previously addressed in the Final Rejection of 27 September 2004. Furthermore, the HP Jordana 430/430se device inherently supports the capability to transfer/receive information between itself and multiple computing devices whereupon the user can view the transferred information on the monitor of a local computing device. In order to accept the position that PocketTV™ article with its associated platform the HP Jordana 430/430se is limited to only being capable of providing the ability to carry a movie

Art Unit: 2614

in your pocket begs the question as to how the device received the downloaded movie in the first place. The Schindler et al. personal computer provides a means so as to download this information and the particular portable nature of the PocketTV™ article advantageously allows users of the Schindler et al. system with a means for portability of the recorded media which would not otherwise be realized using the illustrated system configuration.

Accordingly, it is the examiner's opinion that adequate motivation so as to utilize a PDA with a personal computer / "set top box" [118] has been provided and does not believe it to be unreasonable to conclude that the particular combination of references as set forth would not be capable of providing the ability to display the image onto the larger screen.

With respect to applicant's arguments pertaining to the viewing the invention as a whole, the examiner respectfully disagrees. The Schindler et al. reference discloses the particular usage of a personal computer that serves as both a hub for interconnected A/V devices and a set top box (Figure 1) and is operable to display received signals on a large monitor.

Applicant's have conceded that the PocketTV™ with its associated platform the HP Jordana 403/430se are interconnectable with a computer. As such, it is the examiner's opinion that the usage of a personal computer [118] which generates MPEG1 encoded signals with a PocketTV™ device, which by its very nature, is designed to be interconnected with a computer and requires the usage of MPEG1 encoded signals for local display is not unreasonable. The remaining question is whether or not the combination would further facilitate the transfer of information from the small screen handheld device and the larger screen associated with the computer. Given that the HP Jordana 430/430se is inherently capable of supporting the transfer and subsequent display of files onto a larger screen device

Art Unit: 2614

such as that associated with a personal computer and given that the particular display of the stored material from a handheld computing device with a small screen to a larger screen and the particular advantages for doing so are common knowledge, it is the examiner's position that it is not unreasonable to conclude that taken in combination the references as a whole meet the claimed invention taken as a whole.

In regards to applicant's remarks pertaining to claims 47 and 48, as was previously addressed in the Perlman combination, it is the examiner's opinion that the particular sharing of recorded media material between two users having identical or compatible configurations and the illustrative example provided by the examiner is not unreasonable and would be recognized by those having ordinary skill in the art.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 30 December 2004 was filed after the mailing date of the Final Rejection on 27 September 2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

5. As discussed during the interview of 30 November 2004 applicant's remarks pertaining to the drawings were deemed persuasive. Accordingly, the objection to the drawings is withdrawn and the drawings submitted on 08 June 2000 are approved.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 35-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman (US Pat No. 6,169,879), in view of the PocketTV™ article, and in further view of Huang et al. (US Pat No. 6,437,836).

In consideration of claim 35, the Perlman et al. reference discloses a method, system, and article of manufacture for facilitating communications between a WebTV “set top box” [40] and a plurality of “electronic devices” defined as “any number or type of various consumer electronic devices that provide audio output, video output, or information services” (Col 6, Lines 45-60). The system implicitly comprises “two or more set top boxes (STBs)” [40] or WebTV boxes (Col 8, Lines 12-15) associated with a given user’s home entertainment system for “controlling a display of audio/visual information” [110]. A WebTV®, as defined in the Microsoft Computer Dictionary 5th Edition, is a “system that provides consumers with the ability to access the Web as well as send and receive e-mail on a television by means of a set-top box equipped with a modem”.

The reference discloses that the “set top box” [40] is operable to “receive broadcast audio/visual information” (Col 7, Line 66 – Col 8, Line 4) and “receive” / “transmit audio/video information” from/to any of the connected sources such as a VCR [130] whereupon it is “transformed . . . to a form suitable for presentation on an output device” for

Art Unit: 2614

“display on the output device” [110] (Col 9, Lines 23-30, 46-65). The reference, however, does not explicitly disclose nor preclude that the aforementioned interconnected “electronic devices” would not further include a “handheld computing device” such as one that provides audio output, video output, or information services. The “PocketTV Brings Video to Palm-size PC” article discloses a “handheld computing device” such as a PDA (ex. HP Jornada 430se) that further provides audio and video output in a manner such that it “becomes a miniature VCR” and further inherently supports the ability to “transmit” and “receive” video files to a computer, as further evidenced by the “HP Jornada 430/430se Palm-size PC User’s Guide” of record. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a “handheld computing device” as disclosed in the PocketTV™ article in conjunction with the “set top box” [40] interconnection teachings of Perlman for the purposes of enabling the recording/storage of “audio/visual information” on a portable device that may advantageously allow for the storage of an entire movie in your pocket (PocketTV™ article) in a portable manner. Furthermore, such a combination would implicitly provide a means for presenting such information using a larger display screen [110] analogous to the Perlman VCR arrangement for the commonly known advantage of providing the “handheld computing device” or PDA user with a more easily viewable image when the PDA is interconnected to the “set top box” [40] based upon a higher screen size and resolution (HP Jornada 430se provides a maximum of 16-bit video or 65,336 colors) and/or enabling easier viewing for additional/multiple user so as to share viewing the recorded content given the larger screen image.

Taken in combination, the combined teachings disclose a “set top box” [40] that facilitates the distribution of audio/visual information to, from, and between a plurality of interconnected electronic devices including “handheld computing device” for display on the “output device” [110]. However, the reference does not explicitly disclose nor preclude that the “handheld computing device” is further configured to facilitate remote control type functions. The Huang et al. reference discloses the particular usage of a “handheld computing device” or PDA that is operable to “receive a user command from a user” and “translate the user command into a command signal” so as to “control one or more of the STBs using the command signal” (Col 6, Lines 16-31; Col 7, Lines 43-58). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the “handheld computing device” of the combined teachings for the purpose of utilizing a PDA as a platform for a remote control that advantageously facilitates added flexibility and functionality (Huang et al.: Col 3, Line 51 – Col 4, Line 21).

Claims 47 and 48 are rejected as previous set forth in the rejection of claim 35. The aforementioned combined references do not explicitly disclose the particularly claimed scenario wherein a “first of one or more hand held computing devices” is operable to interact with a STB (Claim 47) such that “the first hand held computing device and second hand held computing device are different hand held computing devices”. In response to the examiner’s previous objection pertaining to the drawings failing to illustrate such a scenario utilizing multiple “handheld computing devices” in conjunction with a single “set top box”, the applicant states that such a scenario is a “conventional feature” and as such need not be shown in the Figures (Response to Final Rejection, 01 December 2003, Page 7).

Art Unit: 2614

Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention that the aforementioned combined teachings of Perlman would be operable to utilize both a “first” and a “second handheld computing device” that are different for the purposes of enabling a viewer to transport and share media with another user with a similar configuration.

Alternatively, it is well known in the art that viewers desire to share recorded media for a number of reasons. The combined Perlman and PocketTV™ articles suggest the use of a portable “handheld computing device” in which a viewer may take recorded media along with them. One of ordinary skill in the art would recognize that multiple home entertainment systems of the combined references may exist and meet the claimed limitations wherein the “first” and “second handheld computing devices” are “different”. Feasibly a viewer with a “first hand held computing device” may “receive audio/visual information” that is “transmitted” to a “first handheld computing device” and “stored”. The viewer’s friend may own a “second handheld computing device” that “receives” and “stores” a different program. Over afternoon tea, the second viewer may talk about the program that he/she watched last night. Presuming that the first viewer has not viewed the program, the second viewer having ordinary skill in the art and being a polite conversationalist may offer to share the contents of the “second handheld computing device”. One having ordinary skill in the art would subsequently recognize that it would be advantageous to plug the “second handheld computing device” into the first users home entertainment system such that it “receives” and “provides the audio/visual information from the second hand held computing device” to an “output device” [110] such as a television set for the purpose of advantageously providing

Art Unit: 2614

the video display on a larger screen that is easier to view so as to share the program with the second user.

In consideration of claim 57, as aforementioned, the combined teachings disclose a “handled computing device” such as a PDA that is implicitly operable to “control two or more set top boxes” of similar configuration. As aforementioned, the “handheld computing device”, in light of the combined references, is operable to “receive audio/visual information from a first STB”, “store the received audio/visual information” and subsequently transmit the “stored audio/visual information to a second STB for display on the output device”.

In consideration of claims 36, 37, 58, and 59, it is known in the art that viewers share recorded media. The combined disclose the use of a portable “handheld computing device” in which a viewer may take recorded media along with them. Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to recognize various usage scenarios for the purpose of sharing and distributing media between users with a similar configuration of home entertainment systems. For example, one of ordinary skill in the art would recognize that given multiple home entertainment systems that a user might record information on their “handheld computer device” for storage and playback on the “same” STB for the purpose of presenting such information using a larger display screen that advantageously provides a higher screen image resolution than that associated with the PDA (HP Jornada 430se provides a maximum of 16-bit video or 65,336 colors) and/or enables easier viewing for additional/multiple user so as to share viewing the recorded content given the larger screen image. Alternatively, the use of the “same” STB provides the user with the ability to record and advantageously watch the program at a later

Art Unit: 2614

time. Similarly, in conjunction with the sharing of media, a user of a “handheld computer device” may subsequently share or distribute the media to a “different” STB associated with a friend for the purposes of advantageously enabling the sharing (analogous to sharing a traditional VCR tape) and viewing of the recorded media on a larger display screen associated with a different location.

In consideration of claims 38, 49, and 60, it is notoriously well known in the art to for a VCR to “transmit the audio/visual information . . . in response to the depressing of a signal button” such as the play button. As aforementioned, the Perlman reference discloses that the VCR [130] is operable to “transmit the audio/visual information” to a “set top box” [40]. Accordingly, given that the suggestion by PocketTV™ article that the PocketTV™ is a “miniature VCR”, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a “user command” such as that associated with a play button similar to other VCRs in the art for the purpose of providing a means for “transmitting audio/visual information” to the “second STB” [40] for display on the “output device” [110] using an interface with which a user of a VCR is familiar.

In consideration of claims 39 and 61, it would have been obvious to one having ordinary skill in the art at the time of the invention to store the audio/visual information on the “handheld computing device in encrypted form” for the purpose of limiting the distribution and subsequent playback of the record media to individuals per the media terms of use.

In consideration of claims 40, 41, 50, 51, 62, and 66, the Perlman reference discloses that the embodiment is operable to support a means for electrically connecting each of the consumer electronic devices to the central device in a hub and spoke configuration (Col 14,

Art Unit: 2614

Lines 31-33) and may further reformat signals between various formats (Col 16, Lines 12-23). The Huang et al. reference discloses the particular usage of “wireless transmission” to communicate with the “one or more of the STBs” (Col 5, Lines 15-21). A PDA such as the HP Jordana 430/430se is operable to communicate via both “wireless” and “wired” means. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further utilize “wired” means in conjunction with “communications” with the “one or more STBs” associated with audio/video materials for the purpose of utilizing a distribution method that supports a higher data transfer rate needed to support streaming video.

In consideration of claims 42, 52, and 64, the Huang et al. embodiment is “configured to control a video cassette recorder” (Col 5, Lines 22-30). The Perlman reference, however, does not explicitly disclose nor preclude that the “set top box” [40] further comprises an “incorporated” video cassette recorder. Rather, the video cassette recorder [130] is illustrated as a separate unit. However, Perlman explicitly incorporates by reference the Perlman (US Pat No. 6,530,085) reference (Col 1, Lines 7-10). The Perlman (‘085) reference discloses that the “set top box” [40] may comprise an “incorporated” video cassette recorder (Col 19, Lines 46-64). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention that the VCR [130] referenced in conjunction with the Perlman (‘879) reference may be either external or internal to the “set top box” [40].

In consideration of claims 43, 53, and 65, the combined references do not explicitly disclose the particular technique for “filtering out desirable information from the broadcast audio/visual information for transmission and storage on the handheld computing device”.

As referenced in the PocketTV article, a Palm sized device may comprise 64 MB of memory that is operable to store more than one hour of audio/visual information (Para. 2).

Accordingly, it would have been obvious to one having ordinary skill in the art to “filter out desirable information from the broadcast audio/visual information” do so for the purpose of utilizing the limited storage capacity to store “desired” material as opposed to undesirable material.

In consideration of claims 44, 54, and 66, the combined references do not explicitly disclose that the “audio/visual information” is transmitted over a “constant period interval”. It would have been obvious to one having ordinary skill in the art at the time the invention was made to transmit information over a “constant periodic interval” since it was known in the art that data such as wireless streamed video is transmitted at a “constant periodic interval” of 100 Mbit/sec or higher per the PocketTV article. Furthermore, the IrDA compliant transceivers such as that associated with the HP Jornada 430/430se transmit information at a “constant period interval” from 9600 b/s with primary speed/cost steps of 115 kb/s and maximum speed up to 4 Mb/s.

In consideration of claims 45, 55, and 67, the “audio/visual information” is “transmitted from one of the STBs to the handheld computing device only when an amount of the audio/visual information exceeds a threshold” such that information is only transmitted when information is available. Alternatively, given that the embodiment is operable to communicate via both “wireless” and “wired” means, it would have been obvious to one having ordinary skill in the art that information would be transmitted via the “wired” means

Art Unit: 2614

if the data transfer rate exceeds 100 Mbit/sec since such a transfer rate is not supported in conjunction with wireless distribution as taught by the PocketTV article.

In consideration of claims 46, 56, and 68, as aforementioned audio/visual information may be “transmitted” from one of the “handheld computing devices” or electronic devices to the STB [40] (Perlman ('879): Col 9, Lines 46-54). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to “transmit” the “audio/visual information . . . from one of the STBs to the handheld computing device when requested by the handheld computing device” for the purpose of providing a means by which the user may control and specify the particular information to be stored on the “handheld computing device”.

8. Claims 35-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schindler et al. (US Pat No. 5,675,390), in view of the PocketTV™ article, and in further view of Huang et al. (US Pat No. 6,437,836).

In consideration of claim 35, the Schindler et al. reference discloses a method, system, and article of manufacture for facilitating communications between a computer / “set top box” [118] and a plurality of “electronic devices” (Figure 1). In light of the applicant’s specification, a “set top box” is disclosed as any device capable of receiving program information signals (IA: Page 10, Lines 23-25). The reference discloses that the “set top box” [118] is operable to “receive broadcast audio/visual information” including MPEG-1 encoded signals and to “receive” / “transmit audio/video information” from/to a connected sources such as a VCR [172] whereupon it is “transformed . . . to a form suitable for presentation on an output device” for “display on the output device” [122] (Col 7, Line 44 –

Art Unit: 2614

Col 8, Line 65). The reference, however, does not explicitly disclose the particular usage of a “handheld computing device” to be used in conjunction with the embodiment for the receiving and transmitting material to/from a computer. The PocketTV™ article, as interpreted by the applicant (Paper 18, Page 9, Lines 7-10), discloses a device or PDA that is limited to receiving and transmitting material to/from a computer. As referenced in the article, such information comprises MPEG-1 encoded video. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a “handheld computing device” as disclosed in the PocketTV™ article in conjunction with the computer / “set top box” [118] of Schindler et al. which facilitates the storage and processing of MPEG-1 encoded video for the purposes of enabling the recording/storage of “audio/visual information” on a portable device that may advantageously allow for the storage of an entire movie in your pocket (PocketTV™ article) in a portable manner. Furthermore, such a combination would implicitly provide a means for presenting such information using a larger display screen [122] for the commonly known advantage of providing the PDA user with a more easily viewable image when the PDA is interconnected to the “set top box” [118] based upon a higher screen resolution (HP Jornada 430se provides a maximum of 16-bit video or 65,336 colors) and/or enabling easier viewing for additional/multiple user so as to share viewing the recorded content given the larger screen image.

Taken in combination, the combined teachings disclose a computer / “set top box” [118] and “handheld computing device” or PDA that are operable to interchange information and display “audio/visual information” on the “output device” [122]. However, the reference does not explicitly disclose nor preclude that the “handheld computing device” is further

Art Unit: 2614

configured to facilitate remote control type functions. The Huang et al. reference discloses the particular usage of a “handheld computing device” or PDA that is operable to “receive a user command from a user” and “translate the user command into a command signal” so as to “control one or more of the STBs using the command signal” (Col 6, Lines 16-31; Col 7, Lines 43-58). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the “handheld computing device” of the combined teachings for the purpose of utilizing a PDA as a platform for a remote control that advantageously facilitates added flexibility and functionality (Huang et al.: Col 3, Line 51 – Col 4, Line 21).

Claims 47 and 48 are rejected as previous set forth in the rejection of claim 35. With respect to the differences, the aforementioned combined references do not explicitly disclose the particularly claimed scenario wherein a “first of one or more hand held computing devices” is operable to interact with a STB (Claim 47) such that “the first hand held computing device and second hand held computing device are different handheld computing devices”. In response to the examiner’s previous objection pertaining to the drawings failing to illustrate such a scenario utilizing multiple “handheld computing devices” in conjunction with a single “set top box”, the applicant states that such a scenario is a “conventional feature” and as such need not be shown in the Figures (Response to Final Rejection, 01 December 2003, Page 7). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention that the aforementioned combined teachings would be operable to utilize both a “first” and a “second handheld computing device” that are

different for the purposes of enabling a viewer to transport and share media with another user with a similar configuration.

Alternatively, it is well known in the art that viewers desire to share recorded media for a number of reasons. The combined references articles suggest the use of a portable “handheld computing device” in which a viewer may take recorded media along with them. One of ordinary skill in the art would recognize that multiple home entertainment systems of the combined references may exist and meet the claimed limitations wherein the “first” and “second handheld computing devices” are “different”. Feasibly a viewer with a “first handheld computing device” may “receive audio/visual information” that is “transmitted” to a “first handheld computing device” and “stored”. The viewer’s friend may own a “second handheld computing device” that “receives” and “stores” a different program. Over afternoon tea, the second viewer may talk about the program that he/she watched last night. Presuming that the first viewer has not viewed the program, the second viewer having ordinary skill in the art and being a polite conversationalist may offer to share the contents of the “second handheld computing device”. One having ordinary skill in the art would subsequently recognize that it would be advantageous to plug the “second handheld computing device” into the first users home entertainment system such that it “receives” and “provides the audio/visual information from the second hand held computing device” to an “output device” [122] such as a television set for the purpose of advantageously providing the video display on a larger screen that is easier to view so as to share the program with the second user.

Art Unit: 2614

In consideration of claim 57, as aforementioned, the combined teachings disclose a “handled computing device” such as a PDA that is implicitly operable to “control two or more set top boxes” of similar configuration. As aforementioned, the “handheld computing device”, in light of the combined references, is operable to “receive audio/visual information from a first STB”, “store the received audio/visual information” and subsequently transmit the “stored audio/visual information to a second STB for display on the output device”.

In consideration of claims 36, 37, 58, and 59, it is known in the art that viewers share recorded media. The combined disclose the use of a portable “handheld computing device” in which a viewer may take recorded media along with them. Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to recognize various usage scenarios for the purpose of sharing and distributing media between users with a similar configuration of home entertainment systems. For example, one of ordinary skill in the art would recognize that given multiple home entertainment systems that a user might record information on their “handheld computer device” for storage and playback on the “same” STB for the purpose of presenting such information using a larger display screen that advantageously provides a higher screen image resolution than that associated with the PDA (HP Jornada 430se provides a maximum of 16-bit video or 65,336 colors) and/or enables easier viewing for additional/multiple user, so as to share viewing the recorded content given the larger screen image. Alternatively, the use of the “same” STB provides the user with the ability to record and advantageously watch the program at a later time. Similarly, in conjunction with the sharing of media, a user of a “handheld computer device” may subsequently share or distribute the media to a “different” STB associated with

Art Unit: 2614

a friend for the purposes of advantageously enabling the sharing (analogous to sharing a traditional VCR tape) and viewing of the recorded media on a larger display screen associated with a different location.

In consideration of claims 38, 49, and 60, it is notoriously well known in the art to for a VCR to “transmit the audio/visual information . . . in response to the depressing of a signal button” such as the play button. Accordingly, given that the suggestion by PocketTV™ article that the PocketTV™ is a “miniature VCR”, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a “user command” such as that associated with a play button similar to other VCRs in the art for the purpose of providing a means for “transmitting audio/visual information” to the “second STB” [118] for display on the “output device” [122] using an interface with which a user of a VCR is familiar.

In consideration of claims 39 and 61, it would have been obvious to one having ordinary skill in the art at the time of the invention to store the audio/visual information on the “handheld computing device in encrypted form” for the purpose of limiting the distribution and subsequent playback of the record media to individuals per the media terms of use.

In consideration of claims 40, 41, 50, 51, 62, and 66, the Huang et al. reference discloses the particular usage of “wireless transmission” to communicate with the “one or more of the STBs” (Col 5, Lines 15-21). A PDA such as the HP Jordana 430/430se is operable to communicate via both “wireless” and “wired” means. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further utilize “wired” means in conjunction with “communications” with the “one or more STBs”

Art Unit: 2614

associated with audio/video materials for the purpose of utilizing a distribution method that supports a higher data transfer rate needed to support streaming video.

In consideration of claims 42, 52, and 64, the Huang et al. embodiment is “configured to control a video cassette recorder” (Col 5, Lines 22-30). The Schindler et al. reference, further discloses that the computer / “set top box” [118] comprises an “incorporated” video cassette recorder [330] (Col 10, Lines 52-54).

In consideration of claims 43, 53, and 65, the combined references do not explicitly disclose the particular technique for “filtering out desirable information from the broadcast audio/visual information for transmission and storage on the handheld computing device”. As referenced in the PocketTV article, a Palm sized device may comprise 64 MB of memory which is operable to store more than one hour of audio/visual information (Para. 2). Accordingly, it would have been obvious to one having ordinary skill in the art to “filter out desirable information from the broadcast audio/visual information” do so for the purpose of utilizing the limited storage capacity to store “desired” material as opposed to undesirable material. It is unclear as to why one would be motivated to record program material for which the user has no interest.

In consideration of claims 44, 54, and 66, the combined references do not explicitly disclose that the “audio/visual information” is transmitted over a “constant period interval”. It would have been obvious to one having ordinary skill in the art at the time the invention was made to transmit information over a “constant periodic interval” since it was known in the art that data such as wireless streamed video is transmitted at a “constant periodic interval” of 100 Mbit/sec or higher per the PocketTV article. Furthermore, the IrDA

Art Unit: 2614

compliant transceivers such as that associated with the HP Jornada 430/430se transmit information at a “constant period interval” from 9600 b/s with primary speed/cost steps of 115 kb/s and maximum speed up to 4 Mb/s.

In consideration of claims 45, 55, and 67, the “audio/visual information” is “transmitted from one of the STBs to the handheld computing device only when an amount of the audio/visual information exceeds a threshold” such that information is only transmitted when information is available. Alternatively, given that the embodiment is operable to communicate via both “wireless” and “wired” means, it would have been obvious to one having ordinary skill in the art that information would be transmitted via the “wired” means if the data transfer rate exceeds 100 Mbit/sec since such a transfer rate is not supported in conjunction with wireless distribution as taught by the PocketTV article.

In consideration of claims 46, 56, and 68, as aforementioned, it would have been obvious to one having ordinary skill in the art at the time the invention was made to “transmit” the “audio/visual information . . . from one of the STBs to the handheld computing device when requested by the handheld computing device” for the purpose of providing a means by which the user may control and specify the particular information to be stored on the “handheld computing device”.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of

Art Unit: 2614

claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made.

- The HP Jornada 430/430se Palm-size PC: User's Guide - Chapter 6 provides evidence that the HP Jornada device is inherently capable of supporting the transfer of files to/from multiple computers wherein those files may be displayed on both the computer monitor and the device.
- The Cooper et al. (US Pat No. 6,754,904) reference provides evidence that it is recognizable in the art that a "WebTV" set-top box is essentially a general purpose computer that further includes a tuner (Col 2, Lines 21-34).

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, THIS ACTION IS MADE FINAL even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2614

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 703-305-4907.


The examiner can normally be reached on Monday-Friday from 9:00 a.m. - 6:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 703-305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEB

February 2, 2005


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